

REMARKS/ARGUMENTS

The examiner objected to the drawings indicating that “the stator assembly is directly connected to the housing” in claim 6 is not shown in the drawings. Applicant submits new Fig. 5 that shows the claimed feature. No new matter is added. The specification has been amended to include a description of Fig. 5.

The examiner objected to the specification as including mismatched reference numbers. The paragraph beginning on page 4, line 7 has been amended to correct such error.

The examiner objected to claims 4 and 15 as being unclear. Applicant respectfully submits that the claims as amended address the examiner’s concerns.

The examiner rejected claims 1, 5-6 under 35 U.S.C. §102 as being anticipated by U.S. Patent No. 4,547,135 (Noel et al.). The examiner rejected claim 3 under 35 U.S.C. §103 as being unpatentable over Noel et al. in view of U.S. Patent No. 4,079,278 (Luneau). The examiner rejected claims 4, 7-8 35 U.S.C. §103 as being unpatentable over Noel et al. in view of U.S. Patent No. 5,246,349 (Hartog). The examiner rejected claims 10-11, 14 and 17 under 35 U.S.C. §103 as being unpatentable over Hartog in view of Luneau. The examiner rejected claim 13 under 35 U.S.C. §103 as being unpatentable over Hartog in view of Luneau and U.S. Patent No. 5,947,854 (Kopko). The examiner rejected claim 15 under 35 U.S.C. §103 as being unpatentable over Hartog in view of Luneau and U.S. Patent No. 3,848,422 (Schibbye). The examiner rejected claim 16 under 35 U.S.C. §103 as being unpatentable over Hartog in view of Luneau and U.S. Patent No. 5,413,467 (Suzuki). Applicant respectfully traverses these rejections.

Independent claim 1 recites a rotary screw air compressor comprising a main body supporting first and second interengaged compressor rotors; and a substantially horizontal drive shaft having first and second portions, wherein one of the first and second compressor rotors is mounted on the drive shaft first portion and the motor rotor is mounted directly on the drive shaft second portion, the drive shaft first portion being vertically supported by the compressor main body and the drive shaft second portion is free of vertical support to provide cantilever support of the motor rotor, and wherein the drive shaft drives the compressor rotor mounted thereon and the interengagement between the first and second compressor rotors drives the other compressor rotor.

Noel et al. is directed to a screw-spindle pump with a drive shaft positioned between running spindles. Noel et al. does not teach or suggest a rotary screw compressor having the

motor rotor cantilever supported by the compressor rotor shaft. Noel et al. does not teach each and every recited limitation, and therefore, does not anticipate the claimed invention. Furthermore, one skilled in the art would not look to the small power consumption application of a screw-spindle pump to drive a high power consumption rotary screw air compressor.

U.S. Patent No. 5,846,062 (Yanagisawa et al.), cited on the Information Disclosure Statement submitted herewith, also does not teach or suggest a rotary screw compressor having the motor rotor cantilever supported by the compressor rotor shaft, with the compressor rotor shaft driving both compressor rotors. Yanagisawa et al. dismisses the prior art design shown in Fig. 8 which requires a pulley to drive the second pump rotor shaft. Yanagisawa et al. instead teaches cantilever mounting the pump rotors instead of the motor rotor. There is no teaching or suggestion in the cited references a rotary screw compressor having the motor rotor cantilever supported by the compressor rotor shaft, with the compressor rotor shaft driving both compressor rotors.

Claims 3 and 10 each recite a rotary screw air compressor assembly including a hybrid permanent magnet motor providing an induction mode and a permanent magnet mode. The examiner cites Luneau as teaching a hybrid permanent magnet motor. However, “[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. . . . To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.” M.P.E.P. § 2142 citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Instead of providing objective evidence, the examiner makes the bald, conclusive statement that the references teach the claimed elements and it would be obvious to combine the references because the examiner believes, after reading appellants' application, that it would be obvious. The examiner's conclusive statement is based on hindsight, whereby the examiner has used the applicants' specification as a blue print to find the claims obvious. “However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis

of the facts gleaned from the prior art.” M.P.E.P. § 2142. As the Federal Circuit recognized in *In re Fritch* 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992), “it is impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious. ... This court has previously stated that ‘[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.’”

Since there is no teaching or suggestion to combine the cited references, the examiner has failed to establish a *prima facie* case of obviousness. Furthermore, since none of the references, alone or in any reasonable combination, teaches each of the claimed limitations, the examiner has failed to establish a *prima facie* case of obviousness.

It is respectfully submitted that pending claims 1, 3-7, 10, 11 and 14-17 are in condition for allowance. Early reconsideration and allowance of the pending claims are respectfully requested.

If the examiner believes an interview, either telephonic or in person, will advance the prosecution of this matter, it is respectfully requested that the examiner get in contact with the undersigned.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'G. Massina', with a long horizontal flourish extending to the right.

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Amendments to the Drawings:

The attached sheet of drawings includes a new Fig. 5.

Attachment: New Drawing Sheet